We Claim:

1. A phase locked loop for open loop mode, comprising:

a voltage controlled oscillator having a first tuning input for a tuning voltage and a signal output for an output signal of tunable frequency;

said voltage controlled oscillator having a frequency-determining capacitance controlled using a second tuning input;

a frequency divider having an adjustable division ratio for the purpose of channel adjustment for the phase locked loop, having an input coupled to said signal output of said oscillator, having an output carrying a frequency-divided output signal and coupled to said first tuning input of said oscillator in a control loop, and having a control input for stipulating the division ratio; and

a frequency stipulation unit for programming the frequency of the output signal of tunable frequency connected, firstly, to said control input of said frequency divider for transmitting a frequency word and, secondly, to said second tuning input of said oscillator for transmitting the frequency word such that a change in the tuning voltage upon a change in the frequency word disappears or is as small as possible in order to avoid

any frequency drift in an open loop mode of the phase locked loop.

2. The phase locked loop according to claim 1, which further comprises a phase detector having a first input connected to said output of said frequency divider, a second input connected to a reference frequency source, and an output connected via a loop filter to said first tuning input of said oscillator.

3. The phase locked loop according to claim 1, wherein said capacitance is a controllable capacitance formed by a variable capacitance diode.

4. The phase locked loop according to claim 1, wherein said capacitance is a controllable capacitance comprising a plurality of discrete capacitor elements each to be selectively connected or disconnected.

5. The phase locked loop according to claim 4, wherein said capacitor elements are graded on a binary basis.

6. The phase locked loop according to claim 1, which further comprises a digital/analog converter connected between said frequency stipulation unit and said second tuning input for

driving said capacitance with the frequency word from said frequency stipulation unit.

7. The phase locked loop according to claim 6, wherein said capacitance is a controllable capacitance formed by a variable capacitance diode driven by said frequency stipulation unit.

8. The phase locked loop according to claim 1, which further comprises a data bus connecting said frequency stipulation unit to said control input of said frequency divider and to said second tuning input of said oscillator for transmitting the frequency word.